

Bolton (H. C.)

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REPORT OF THE COMMITTEE ON INDEXING CHEMICAL LITERATURE.  
Dr. H. CARRINGTON BOLTON, reporter.

THE Committee on Indexing Chemical Literature respectfully present to the Chemical Section their third annual report.

Five hundred copies of our report for 1884 have been sent to chemists throughout the United States, the distribution having been made through the Smithsonian Institution without expense to the committee; the report was also published in the chemical News (London), and favorably noticed in the American Library Journal (New York). This wide circulation led to many applications for single indexes and for sets, which were filled as far as possible either by the chairman or by Professor D. S. Martin, editor of the Annals of the New York Academy of Sciences, in which serial most of the indexes were published.

But one offer of assistance in the scheme of coöperative indexing has been received during the year.

Dr. F. E. Engelhardt offers to undertake an Index to the Literature of Common Salt.

Reports of progress have been received from several gentlemen: Professor Wm. Ripley Nichols, on Carbon Monoxide; Professor L. P. Kennicutt, on Meteorites; Professor C. E. Monroe, on Explosives.

During the year Dr. H. Carrington Bolton has published in the Annals of the New York Academy of Sciences a Catalogue of Chemical Periodicals (58 pp., 8vo, New York, 1885). This embraces 182 titles in several languages, and is intended to form an authoritative list of all the completed and existing periodicals devoted to chemistry, with a view to facilitating the researches of those undertaking the compilation of indexes.

Dr. Bolton has also completed the second Index to the Literature of Uranium mentioned in our preceding report; this index has been examined by the committee, accepted and transmitted to the Smithsonian Institution for publication, in accordance with the agreement entered into by the secretary Professor S. F. Baird. Its early publication may be expected.

The committee deem it part of their duty to chronicle the publication of chemical indexes and bibliographies which may be is-

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sued independently, and which fall under their notice. They therefore call attention to the following :

List of Tests (Reagents), by Hans Wilder. New York and London. 88 pp. 12mo, 1885.

This is a useful little brochure containing a list of nearly 900 chemical tests known by the names of their authors, arranged alphabetically by authors, and provided with a full index of subjects. It can be obtained of Professor P. W. Bedford, 5 Beekman St., New York.

In conclusion, the committee appeal for support to the chemists in whose hands this report may fall ; they call for volunteers to undertake indexes to special topics in chemical literature, and especially to the elementary substances. The indexes and bibliographies now on their list number fifteen ; cannot this number be soon doubled ? The committee does not dictate to independent workers a fixed plan, but leaves method and subject to the authors ; the committee does not seek to control the productions further than to insure work of high merit and to guard the interests of the Smithsonian Institution which has agreed to publish manuscripts endorsed by the committee. Chemists willing to undertake the compilation of indexes are requested to send their names and addresses with a memorandum of the subject chosen, to the chairman of the committee (care of the Smithsonian Institution) who will furnish sample copies of indexes already in print and other desired information.

Respectfully submitted,

H. CARRINGTON BOLTON, *Chairman.*

IRA REMSEN,

F. W. CLARKE,

ALBERT R. LEEDS,

ALEXIS A. JULIEN,

*Committee.*

*August 19, 1885.*



## APPENDIX TO REPORT OF COMMITTEE ON INDEXING CHEMICAL LITERATURE.

*Washington, D. C., October 24, 1884.*

Prof. H. CARRINGTON BOLTON, Ph.D.,

Chairman of the Committee on Indexing Chemical Elements, A.A.A.S.,  
Sir:—

In response to your request for a statement of my method of indexing scientific literature, I have the honor herewith to transmit an account of my plan, and its leading features as I have discovered them by use.

Very respectfully,

WM. FREAR.

A METHOD OF INDEXING SCIENTIFIC LITERATURE. By PROFESSOR WM. FREAR.

For several years it has been my custom to index the most important papers bearing on problems in which I have, from time to time, been interested. After some experience with different methods of indexing, I have finally devised a plan which meets the demands of my own work more fully than any other method I have tried.

In the formation of this plan, the following data have had weight:

1. Information concerning subject-matter, or authorship, is much more frequently sought, than concerning points of chronology, and when historical data are the objects of search, there is much more probability that they relate to minor details of a subject, than to the general class of matter indexed under a bibliographic title.

2. When a given paper is being sought, the clew to its position is probably the name of the author, or the nature of the subject matter, and rarely the date of its reading or publication.

3. To relieve any who may in the future attempt to collate the bibliographies compiled by different individuals, from the necessity of a comparison of every item with the original paper indicated, an index should contain in compact form all distinctive data necessary to a complete knowledge of the subject-nature, and the biographical and historical relations of each paper indexed.

4. Utility, while demanding completeness, will neither allow the space necessary to the full answer of every *form* of query on a given minor subject, nor, on the other hand, a complex system of cross-reference.

In consideration of these facts, the following system was reached:

It involves both an author and a subject-index. In the author-index are given the following data:

1. The full name of the author.

2. The date of the reading of the paper, or if that is not available, the date of publication.
3. The *original* title.
4. If that is not sufficiently specific, a brief emendation added in brackets.
5. The volume and page of the periodical in which the paper first appeared, followed by a list of the places where abstracts are found.

The index of authors is in alphabetical order; while the different papers written by the same author are arranged in chronological order under his name.

The titles in the subject-index are made up from a consideration of the specific subject-matter of a paper, rather than from its title; the arrangement is alphabetical, just like any ordinary subject-index, but references are made under the subdivisions of each specific title to the *authors* who have written on the subject indicated by that particular subdivision, followed by the *date* of the paper given in the author-index. Under each subdivision, the names of the authors occur in alphabetical order.

To illustrate, take the article appearing in the Journal of the Chemical Society of London, Volume 23, page 371, detailing the discovery of butyric ferment in water contaminated by sewage, and entitled Organic Matter in Water, by Charles Heisch, Lecturer, etc. Reference to the Proceedings of the Society shows it to have been read on June 16, 1870.

The author-index would have the following entry:

Heisch, Charles

1870, June 16.

On Organic Matter in Water.

[Occurrence of *butyric ferment* introduced by sewage contamination.]

J. Ch. Soc. 23, 27.

#### List of Abstracts }

In the subject-index the following entries would be made:

- 1). Butyric Ferment.  
Occurrence in water contaminated by sewage.  
Heisch, C., 1870, June 16.
- 2). Water,  
Contaminated by sewage. Occurrence of butyric ferment in.  
Heisch, C., 1870, June 16.

By the use of this plan the following advantages are gained:

1. A ready reference to any paper, given a knowledge of its authorship or subject.
2. A general idea of the lines of investigation already opened up, relating to any specific subject, from a glance at the subject-index.
3. A knowledge of what any author has written on the subject proper

of the bibliography, and in what chronological order, from a glance at the author-index.

4. A ready access to the history of any detail of a specific subject by reason of the relatively small number of references under the proper subdivision, and the use of dates in connection with those references in the subject-index.

5. A possibility of great expansion of the subject-index with the requirements of only a small additional amount of space, and without complexity of cross-reference.

6. The compact arrangement in the author-index, of all data necessary to the distinctive knowledge of an article.

It may seem that an indication of the *locus* of a paper might with advantage be appended to the date in the subject-index, but a consideration of the multitude of abstracts will show immediately the reason for the omission.

Again, it may be urged that the first of the principles announced as the basis of the system—viz.: the paramount importance of subject and authorship, would require a subject-classification of the papers under the name of a given author, rather than the chronological order which is adopted. An attempt to arrange according to the *original* titles will soon be found untrustworthy; an arrangement according to *emended* titles is found to interfere with the ready grasp of the details which are presented in the author-index, and are its marked features.

Finally, it may be objected that an index, prepared according to this system, suffers from the disadvantage of being at best, much more bulky, than those prepared according to other plans which have been proposed; thus involving both greater labor in preparation, and increased expense in publication. In reply to these objections, attention must be called to the fact that the mere labor of *writing* an index is very small, relative to that expended in finding *what* to write, and that the latter factor is a constant, whatever plan be adopted, and second, that though the cost of publication be slightly greater, the greatly increased completeness and utility far outweigh this difference in cost.



